

Claims:

1. A composition for a fire-protection agent for
5 materials, characterized in that its ingredients
include ceramic-forming additives and volume-formers.
2. The composition of claim 1, characterized in that
ceramic-forming additives included are at least two of
10 the compounds disodium tetraborate, ammonium
pentaborate, TiO_2 , B_2O_3 and SiO_2 , especially disodium
tetraborate and ammonium pentaborate.
3. The composition of claim 1 or claim 2,
15 characterized in that volume-formers included are gas-
formers alone or in combination with acid-formers.
4. The composition of claim 3, wherein the gas-former
is selected from the group consisting of NH_4Cl , NaHCO_3 ,
20 melamine phosphate and melamine.
5. The composition of claim 3 or 4, wherein the acid-
former is selected from the group consisting of
melamine phosphate, aluminum sulfate, ammonium
25 polyphosphate, ammonium monophosphate, and melamine-
coated ammonium polyphosphate.
6. The composition of any one of the preceding
claims, comprising as further auxiliaries KAlSO_4 ,
30 $\text{Al}(\text{OH})_3$, aluminum sulfate, pentaerythritol,
dipentaerythritol or tripentaerythritol.
7. The composition of any one of the preceding
claims, which is a paint based on polybutadiene resin,
35 on melamine/formaldehyde and/or on radiation-curable
coating material.

8. The composition of any one of the preceding claims, further comprising dispersants, fillers, pigments, defoamers, inorganic salts, flow control additives, crosslinkers and/or silane/siloxane-based
5 silicone microemulsion.

9. The composition of any one of the preceding claims, wherein the composition is added as an addition to carbon foam-formers.
10

10. The composition of any one of the preceding claims, wherein the composition is in liquid form.

11. The composition of any one of the preceding claims, wherein at least the ceramic-forming additives and the volume-formers are present in nanoparticle-coated form.
15

12. The composition of any one of the preceding claims, wherein salts of the ceramic-forming additives and of the volume-formers exhibit a particle size of 1 to 50 μm .
20

13. A method of treating materials for fire protection, comprising applying a composition of any one of claims 1 to 12.
25

14. The method of claim 13, wherein the material in question is wood, steel, concrete or plastic.
30

15. A method of producing a fire-protection agent, characterized in that ceramic-forming additives are added to a volume-developable fire-protection agent.

35 16. The method of claim 15, characterized in that the ceramic-forming additives are ground with one another before being incorporated by dispersion into the fire-protection agent.

17. The method of either of claims 15 and 16, characterized in that grinding takes place in a ball mill in the absence of moisture for 0 to 3 days.

5

18. The method of any one of claims 15 to 17, characterized in that the ceramic-forming additives and the volume-formers are present as nanoparticle-coated salts.

10

19. The use of a composition of any one of claims 1 to 12 as fire protection for wood, steel, concrete, plastic.

15

20. The use of ceramic-forming additives and/or volume-formers, as defined in any one of the preceding claims, as an admixture to polymers, such as cable sheathings.

20

21. The use of ceramic-forming additives and/or volume-formers for producing transparent coatings, these additives and/or volume-formers being present with particle sizes of 1 to 150 nm as nanoparticles.